

# VACCINE-PREVENTABLE DISEASES

## Diphtheria

This serious disease is caused by bacteria that produce a poison or toxin. Diphtheria can cause blockage of the airway, making it impossible to breathe. It can also cause heart problems and paralysis of the muscles needed for swallowing.

## Hib Disease

*Haemophilus influenzae* type b (Hib) bacteria causes meningitis. It can also cause pneumonia and infection of the blood, joints, bones, throat, and heart covering. The disease is very serious for children younger than age 5, especially infants. In the pre-vaccine era, about 3 to 8 percent of Hib meningitis cases were fatal and, of those children who survived, 15 to 30 percent suffered neurologic damage.

## Hepatitis A

Hepatitis A is a liver disease. Older persons are more likely to have symptoms, such as fever, tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, and jaundice (yellowing of the skin and eyes) than children. Hepatitis A virus is spread from person to person by putting something in the mouth that has been contaminated with the stool of a person with hepatitis A. This type of transmission is called "fecal-oral." For this reason, the virus is more easily spread in areas where there are poor sanitary conditions or where good personal hygiene is not observed.

## Hepatitis B

Hepatitis B is an infection of the liver caused by a virus. It spreads through contact with blood or other body fluids due to sexual contact or sharing of personal items such as needles for injecting drugs, razors, toothbrushes, or eating utensils. Hepatitis B causes a flu-like illness with loss of appetite, nausea, vomiting, rashes, joint pain, and jaundice. An infected pregnant woman can expose her newborn to this virus during birth. The virus stays in the liver of some people for the rest of their lives and can result in severe liver diseases or cancer.

## Influenza (flu)

Influenza is a highly contagious viral infection of the nose, throat, and lungs. It is one of the most severe illnesses of the winter season, and spreads easily when an infected person coughs or sneezes. Influenza may lead to hospitalization or even death, especially among the elderly. Typical symptoms include an abrupt onset of high fever, chills, a dry cough, headache, runny nose, sore throat, and muscle and joint pain. Extreme fatigue can last from several days to weeks.

## Measles

The measles virus is spread very easily. Just being in the same room with a person with measles is enough to catch the disease. Symptoms include a rash, fever, cough, and watery eyes. Measles can also cause pneumonia, seizures, brain damage, or death. Of every 1,000 children who get measles, 1 or 2 will die from the disease.

## Mumps

The mumps virus causes fever, headaches, and swollen salivary glands under the jaw. Children who get mumps may develop a mild meningitis (inflammation of the covering of the brain and spinal cord) and sometimes encephalitis (inflammation of the brain). Mumps can also result in permanent hearing loss.

## Pertussis (whooping cough)

Pertussis is caused by bacteria. It can cause spells of violent coughing and choking, making it hard to breathe, drink, or eat. The cough can last for weeks. Pertussis is most serious for babies, who can get pneumonia, have seizures, become brain damaged, or even die. About two-thirds of children under 1 year of age who get pertussis must be hospitalized.

## Pneumococcal Disease

Pneumococcal disease is a bacterial infection that invades the lungs, causing the most common kind of bacterial pneumonia which can invade the bloodstream (bacteremia) and/ or the brain (meningitis). Symptoms include high fever, cough with chest pain and mucus, shaking chills, breathlessness, and chest pain that increases with breathing. Older adults often experience changes in level of consciousness or confusion.

## Polio

Polio is caused by a virus that is spread by contact with the feces (bowel movement) of an infected person. Symptoms can include sudden fever, sore throat, headache, muscle weakness, and pain. Polio can cause paralysis and death.

## Rubella (German measles)

The rubella virus usually causes a mild sickness with fever, swollen glands, and a rash that lasts about 3 days. But if a pregnant woman gets rubella, she can lose her unborn baby, or the baby can be born blind, deaf, mentally retarded, or with heart defects or other serious problems.

## Tetanus (lockjaw)

Tetanus is caused by a toxin (poison) produced by a bacteria that enters the body through a cut or wound. Tetanus causes serious, painful spasms and stiffness of all muscles in the body and can lead to "locking" of the jaw so a person cannot open his or her mouth, swallow, or breathe. Three of 10 people who get tetanus die from the disease.

## Varicella (chickenpox)

The varicella virus usually causes a rash, itching, tiredness, and fever. It can sometimes lead to severe skin infections, pneumonia, brain infection, or death. Complications occur most often in very young children, adults, or people with damaged immune systems.